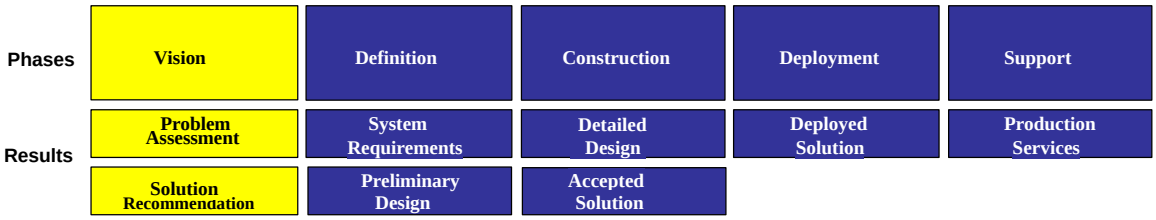
2. Vision Phase

Solution Life Cycle



A summary of SLC recommendations for use during the Vision Phase is contained within the following matrix.

Phase Area	SLC Recommendations
OBJECTIVE	Understand the specific issue(s) facing SFA and conduct an assessment of the business problem or opportunity, so that a recommended solution can be articulated in a Business Case and the IPT can be formed to begin planning the solution.
ENTRY CRITERIA	• A business need has been identified that requires an assessment and solution recommendation; and A member of the SFA Management team has been identified to guide and oversee the Vision Phase process and development of appropriate outputs.

Phase Area	SLC Recommendations
PROCESS AND OUTPUTS *** Sample is provided in Appendix A**	**Solution Acquisition Planning** • Acquisition Planning Estimation Worksheet • Solution Acquisition Plan • Business Case* • Statement of Objectives (SoO) * • Task Order* • IPT Formation • Communication Plan* • Work Breakdown Structure • Business Performance Model * **Solution Acquisition Project Management** • Status Reports • Risks and Issues Tracked **Requirements Development and Management** • High Level Requirements are developed, approved, and placed into the Business Case **System Security** • Assignment Letters • SLC Security Vision Phase Checklist **Other Processes & Plans Started:** • Quality Assurance Plan • Configuration Management Plan • Transition to Support Plan

Phase Area	SLC Recommendations
ROLES AND RESPONSIBILITIES	**The following roles will participate in this phase, and are defined in the Roles and Responsibilities section:** Chief Information Officer eCommerce Application Development (CIO ECAD) CIO IT Management CIO IT Services CM Lead Decision Support Group (DSG) Executive Sponsor Executive Steering Committee Integrated Product Team (IPT) Investment Review Board (IRB) Information Technical Representative (ITR) Project Manager Quality Assurance (QA) Lead Requirements Development and Management (RDM) Lead Subject Matter Experts System Manager System Security Officer Transition to Support (TTS) Lead
EXIT CRITERIA	**The following are critical exit criteria for this phase:** • First iteration of the Solution Acquisition Plan has been developed and approved. • The Business Case has been developed and approved. • The Task Order has been awarded. • The IPT has been formed. • The Work Breakdown Structure has been approved and baselined. • High Level Requirements are developed and approved. • SLC Security Vision Phase checklist has been completed and approved. • Security Assignment Letters are approved. **The following are recommended exit criteria for this phase:** • A Business Performance Model has been developed and approved. • Status Reports are prepared. • Risks and Issues are documented and tracked. • Requirements Development and Management (RDM) Plan has begun. • Creation of the Quality Assurance (QA) Plan. • Creation of the Configuration Management (CM) Plan. • Creation of the Transition to Support (TTS) Plan.

Phase Area	SLC Recommendations
JOB AIDS **(Provided in Process Guides)**	Acquisition Plan Template Solution Acquisition Project Management Checklist Configuration Management Plan Template Business Case Estimating Tool SLC Security Vision Phase Checklist Requirements Traceability Matrix Template

Vision Phase Objective

The objective of this phase is to understand the specific issue(s) facing SFA and (1) conduct an assessment of the business problem or opportunity; (2) articulate a recommended solution in a Business Case; (3) plan the acquisition of the solution identified in the Business Case and (4) form an IPT.

This is the phase in which solution planning will be performed, and the primary drivers for the remaining phases (i.e., business objectives, performance goals) will be defined.

The Vision Phase is the foundation of the SLC Process Guide, and the Business Case is the blueprint for the solution. The information captured in the Business Case is also used to complete the Solution Acquisition Plan. The Solution Acquisition Plan is a tool used by SFA to plan and manage the acquisition of system development projects. Although the Business Case and the Solution Acquisition Plan are created and approved in this initial phase of the life cycle, it is critical that the development of the solution in subsequent phases tie back to the Business Case and the Solution Acquisition Plan. The requirements must meet the objectives, the design must meet the requirements, the development must meet the design, the testing must verify the design and validate the requirements, and the deployment must satisfy the objectives as outlined in the Business Case and the Solution Acquisition Plan. The following topics will be addressed for the Vision Phase:

- Entry Criteria;
- Process and Outputs;
- Roles and Responsibilities;
- Exit Criteria; and
- Job Aids.

Vision Phase Entry Criteria

In this phase of the SLC Process, the only entry criteria are that (1) an SFA business issue that is in need of an IT solution has been identified, and (2) a member of the SFA management team has been identified to guide and oversee the development of the solution. If these criteria have been met, the Vision Phase processes can be initiated.

Vision Phase Process and Outputs

The following paragraphs discuss the processes and outputs to be completed during the Vision Phase.

Solution Acquisition Planning (SAP)

Solution Acquisition Planning's (SAP) purpose is to ensure that reasonable planning for the solution acquisition is conducted and that all elements of the project are considered. The goal of Solution Acquisition Planning is that planning documents are prepared during the Vision and Definition Phases of the SLC and maintained throughout the SLC. The planning document must address the project's entire acquisition life cycle.

Members of the acquiring organization and the designated project manager will begin to plan the management of the project. An example of an acquiring organization would be the Business Units, i.e., the Schools Channel and CIO. The project manager should plan for the entire acquisition life cycle, from the planning phase until the Solution is transition to another organization to support or until the solution is no longer used.

Solution Acquisition Planning occurs throughout the Vision Phase. The first step is for the project manager to estimate the needed resources and time to complete the Vision Phase outputs, for example, the business case. The project manager can use the *Acquisition Planning Estimating Worksheet in the Solution Acquisition Process Guide*.

The contents of the Solution Acquisition Plan should incorporate information from the Business Case and is maintained throughout all phases of the SLC. It includes:

- Estimate the budget for every phase of the SLC and document actual expenditures after each phase is complete.
- Identify SFA resources assigned to manage the acquisition, estimate the days and FTEs for the planning phase (effort) and ensure that SFA resources are trained in managing system acquisitions.
- Document high-level milestones for every phase of the SLC and document actual delivery dates after each phase is complete.
- Explain the Acquisition Strategy completely, including constraints to the acquisition.
- Address all of the aspects of managing an acquisition including project management, solicitation (if applicable), contract tracking and oversight, requirements development and management, supplier evaluation, user acceptance reviews maintenance, transition to support, risk management, quality management, communication, and configuration management.
- Identify the measurements that will be tracked to help manage the acquisition by having important project data available. These measurements will be used to track the success of the project based on what was planned.

Business Case

The first step of creating a business case is to conduct a thorough analysis of the business issue and business needs and recommend a solution to satisfy those needs. This information will be developed by a member of the SFA Management team and documented in the form of a Business Case. The Business Case is used during the IRB investment management process to obtain funding for the project, and will drive subsequent development,

implementation and verification of the solution, as well as include estimates for Transition to Support activity and ongoing maintenance. *See the IT Investment Management Operating Procedures.* The business case also supports SFA compliance with the Clinger Cohen Act. *See Appendix A for sample Business Case.*

The Business Case should:

- Identify the root cause of the business need.
- Identify projected costs and benefits.
- Focus on the value of the solution being proposed.
- Clearly identify the scope of the business issue and solution.
- Identify high-level measures of performance.
- Provide ultimate justification for the investment of SFA funds into the recommended solution.

Before the Business Case can be developed, a clear articulation of the business issue(s) must be documented so that a comprehensive recommendation can be determined. This process begins by gathering information from both internal and external sources. The sources should be selected based on their subject matter expertise and knowledge of the business issue that is to be developed in the Business Case. The information gathered for review includes the Modernization Blueprint, existing processes, technologies, resources, timeframes for implementation, SFA organizational structure, and communication methods. During this phase, security should be considered while the system's business case and high level requirements are developed. *See the SFA System Security Process Guide for specific requirements.* Once the research has been completed, the business needs and a detailed solution recommendation should be stated in the Business Case.

The completed Business Case should be submitted to the Decision Support Group (DSG) to enable the Investment Review Board (IRB) investment management process to be initiated. The DSG will review the Business Case and provide feedback for improvements. When satisfied with the Business Case, the DSG will submit it to the IRB for approval. Official agreement to proceed is confirmed through the approval for funding of the Business Case by the IRB, which consists of the Chief Operating Officer (COO), Channel General Manager(s) (GM), the Chief Financial Officer (CFO) and the Chief Information Officer (CIO). The agreement to proceed is provided to SFA Management and may include initial or full funding to develop the solution. In either case, if additional funding or reductions in funding are identified, the Business Case must be updated and resubmitted for approval. *See the IT Investment Management Operating Procedures for details.*

Once approved, the Business Case must be maintained throughout the life cycle phases by the IPT responsible for development of the solution and provided to the IRB. The IRB is responsible for reviewing the investment as it progresses, requesting changes as appropriate, and evaluating the benefits realized after the solution has been delivered to determine if the objectives, costs and benefits outlined in the Business Case were achieved.

Statement of Objectives (SoO)

Once the Business Case has been approved by the IRB and the initial draft of the Solution Acquisition Plan has been developed, the project team should develop the Statement of Objectives (SoO). The SoO will serve as the

basis for the government proposal to be completed during the delivery of the solution, whether by SFA personnel or a team of SFA and contractor personnel. *For a sample SoO, see Appendix A.* The SoO should clearly outline:

- The background of the business issue.
- Objectives of the recommended solution.
- High-level requirements (technical and non–technical) necessary to meet the objectives. These can be copied from the Business Case.
- List of Government provided resources.
- Outputs or deliverables required to meet the objectives and satisfy the requirements.
- Period of performance for the development and implementation of the recommended solution.

Task Order

Once the SoO has been developed, a Task Order may be created and awarded to a contractor team to assist SFA in developing and implementing the solution recommended in the Business Case and planned for in the Solution Acquisition Plan. *For a sample Task Order, see Appendix A.* The Task Order should respond to the SoO in its content, including high level system security requirements. Note that the Task Order is a contractual obligation between SFA and the contractor team and states the responsibilities of both SFA and the contractor during the delivery of the solution.

IPT Formation

Once the task order is approved, and the leads determine an Integrated Product Team (IPT) is needed, an IPT should be formed. The Executive Sponsor appoints a Project Manager responsible for the delivery of the solution. The IPT should contain other members of SFA and the contractor teams necessary for the development and delivery of the solution. The purpose of the IPT is to:

- Ensure that the SLC Process Guide is followed, and all activities are organized around *products* - and focus the team members on delivery of products, not just the tasks they are assigned.
- Engage the right competencies to develop each component (e.g., functional, technical, change management skills, etc.), taking advantage of each team members' skill sets in order to minimize risk.
- Facilitate team communication and understanding of the problem or opportunity and the solution. *See Appendix A for a Sample Communication Plan.*
- Improve cooperation between team members from SFA and the contractor team, while still holding the contractor team responsible for the end products identified in the Task Order

The IPT should be comprised of other team members appropriate to this solution delivery. The composition of the team will vary depending upon the content and type of solution, but may include members of the Business Unit, CIO eCommerce Application Development (ECAD), CIO Information Technology (IT) Management, CIO IT Services, others from SFA where appropriate and the contractor teams where appropriate. The team members will hold the key positions for the implementation of the SLC KPA within their areas of responsibility. Some of the positions are: System Manager, System Security Officer, Configuration Manager, Requirements Development Manager, Subject Matter Experts and others. See the specific roles associated with these processes in the additional CMM KPA Guides. The IPT should report periodically to an Executive Steering Committee, consisting of the Executive Sponsor, and an executive from both the CIO and contractor. The Executive Steering

Committee is responsible for reviews and recommendations made by the IPT throughout the delivery of the solution.

The formation of the IPT should be followed by a kick-off meeting with all the participants, in which the objectives, resources, schedule and major outputs are discussed. Other agenda items may include roles and responsibilities, risk management activities, review processes, etc.

Work Breakdown Structure (WBS)

The first output of the IPT should be the Work Breakdown Structure (WBS). This documentation outlines the necessary tasks, level of effort, cost, and schedule for accomplishing the recommended solution. The WBS evolves over time throughout the acquisition life cycle. The purpose of the WBS is to describe how the IPT has tailored the SLC to conduct the project in order to achieve the desired solution. The WBS should:

- Identify the work to be performed, often in a hierarchical view of deliverables and/or tasks required to deliver the solution.
- Include the schedule which illustrates the required timeline of the solution delivery, by identifying start and end dates of each of the major tasks, as well as required completion and delivery dates of major outputs.
- Illustrate the resources required to complete each major task as well as produce each major output.

This WBS should be baselined upon approval, and as it evolves, be maintained by the IPT throughout the life cycle of the solution delivery. As changes occur, the WBS must be reviewed by the SFA CIO Organization, and be approved by the Project Manager and the Executive Sponsor; acknowledged with a sign-off of the document.

Business Performance Model

The Business Performance Model outlines performance targets and indicators for the solution. This is an important output because it provides the capabilities to measure the actual benefits achieved after the solution has been delivered.

The performance targets outlined in the Business Performance Model should relate directly to one or more of the overall SFA performance objectives:

- Reduce unit costs
- Increase customer satisfaction
- Increase employee satisfaction

For a sample Business Performance Model, see Appendix A. The Business Performance Model should contain the definitions of metrics as well as the methods of measurement, presentation, and communication that monitor the performance during implementation. For example, it may outline system availability, or how many transactions are required to be processed within an hour. The Business Performance Model must be approved by the Executive Sponsor, acknowledged with a sign-off of the document.

Solution Acquisition Project Management (SAPM)

The purpose of Solution Acquisition Project Management (SAPM) is to manage the activities of the acquisition to ensure a timely, efficient, and effective solution acquisition.

SAPM activities work in conjunction with the Solution Acquisition Planning (SAP) activities described in the SAP Process Guide that can be found in the Appendix.

SAPM involves planning, organizing, staffing, directing, and controlling project activities, such as determining project tasks, estimating effort and cost, scheduling activities and tasks, training, leading the assigned personnel, and accepting products and services. Project management begins when an IT business need is identified and the project management responsibilities are assigned. Project management terminates when the acquisition is completed.

The Solution Acquisition Project Management Process Guide's primary focus is for SFA project managers who lead solution acquisition projects. The SFA project managers should work in conjunction with the contractor's project manager to develop and implement a solution. However, the two roles ultimately have different responsibilities. The process guide describes the role of the SFA project manager.

For further definition of the Solution Acquisition Project Management process, see the Solution Acquisition Project Management Process Guide.

Requirements Development and Management (RDM)

Requirements Development and Management begins with the identification of high level requirements, translated into business case facts, followed by the development of verifiable requirements that are implemented and deployed. These requirements are defined in the business case and are approved as part of the business case approval process. RDM continues throughout all phases of the Solution Life Cycle.

System Security

The Executive Sponsor assigns a System Manager, who in turn, assigns a System Security Officer in writing. *See the SFA System Security Process Guide for qualifications and samples of Assignment Letters.* These positions are Department of Education staff and are critical to the continual inclusion of security into the system. Early identification of these personnel will promote the addition of security into the system's development effort from planning and development through deployment and support. In addition, the certification and accreditation (C&A) requirement for each system stresses the appointment of key personnel to manage the C&A process.

At the end of the Vision Phase, the SLC Security Vision Phase Checklist should be signed off by the System Security Officer (SSO). The checklist represents the completion of all security related activities for the Vision Phase. The activities include:

- Business Case
- Request for Proposal (RFP) Security Requirements
- Task Order Security Components
- List of Business Partners
- Assignment Letters

- Security Artifact File System
- Electronic Security Artifact File System

For more information regarding the SLC Security Vision Phase Checklist, see the System Security Process Guide.

Quality Assurance (QA)

Quality Assurance activities begin in the Vision phase with planning and process consulting. QA Lead resources are identified by the Project Manager to draft the project's QA plan. The SFA QA/IV&V Team assigned from CIO-ECAD helps the project ensure that they are building the appropriate system correctly.

For further definition of the Quality Assurance process, see the SFA Quality Assurance Process Guide.

Configuration Management (CM)

The Configuration Management Plan provides a general approach for conducting CM activities throughout the acquisition effort. It includes the processes and procedures for assigning CM roles and establishing configuration control, as well as the identification of items to be placed under configuration control. These items will allow tracking of all changes to a system during the specification, designing, coding, testing, deployment and support efforts. The CM Plan also includes a baselining process to protect the integrity of the system work products. *For further information, see the Configuration Management Process Guide.*

Transition to Support (TTS)

The Transition to Support Plan provides a general approach for conducting TTS activities. It includes: activities of designating an SFA TTS Lead, obtaining estimates and funding for transitioning and support, training the transition coordination team from both the development and the support organizations, transitioning the inventory system products, the conduct of the TTS readiness review, and the transition sign-off. The identification of the support organization is important for providing the knowledge transfer and a seamless takeover of an application in the Support Phase. The timing of the identification of the support organization is not always feasible in the Vision Phase, but the identification must be accomplished before the completion of the Construction Phase.

Vision Phase Roles and Responsibilities

The following matrix provides a guide to the roles and responsibilities of the key personnel that participate in the Vision Phase of the life cycle.

Title	Role	Responsibility
CIO ECAD	Liaison between the CIO and the Business Channels.	Review all documents, including the Business Case, Business Performance Model, Solution Acquisition Plan, SoO and Task Order proposal and make recommendations to the Business Channel for technical acceptance or rejection. Provide SFA QA support.

Title	Role	Responsibility
CIO IT MANAGEMENT	Liaison between the Architecture Review Board (ARB) and the IPT. System Architect, Integration Architect.	Review the solution stated in the Business Case, Solution Acquisition Plan, and the Business Performance Model. Review and recommend any hardware, software, integration, and system architecture needs or procurements to the ARB.
CIO IT SERVICES	Liaison between the Virtual Data Center (VDC) and the IPT.	Review solution approach as defined in Business Case, Solution Acquisition Plan and the Business Performance Model. Provide recommendations for implementing the solution. Provide necessary planning data to the VDC.
CM LEAD	Manage project CM activities.	Draft the Project CM plan.
DSG	Business Case Analysis / Review.	Conduct "across the enterprise" analysis and review of all IT initiatives. Review Business Cases and submit to IRB for approval.
EXECUTIVE SPONSOR	Solution Sponsor.	Sponsor the submitted Business Case and approve the Business Performance Model, Solution Acquisition Plan, and Task Order awards. Assign a System Manager and Project Manager.
EXECUTIVE STEERING COMMITTEE	Project Review and Recommendations .	Responsible for reviews and recommendations made throughout the delivery of the solution.
IPT	Solution Development and Delivery Team.	Definition of project goals and strategy. Development of Solution Acquisition Plan and Business Work Plan. Review Task Order proposal.
IRB	Approve Funding.	Review Business Cases to determine if they meet the SFA's priorities and make the funding determination.
ITR	Liaison between Contractor and Business Channels.	Review solution in Business Case, Solution Acquisition Plan, and Business Performance Model. Advise Executive Sponsor on solution vision issues.
PROJECT MANAGER	Plan and Manage the solution acquisition.	Formulate the IPT. Oversee the acquisition planning. Manage the solution acquisition project.

Title	Role	Responsibility
QA LEAD	Plan and manage QA activities.	Implement QA process. Obtain SFA team support from ECAD. Start QA Plan.
RDM Lead	Develop and manage solution requirements.	Implement the RDM process to develop the high level requirements. High level requirements are reviewed, approved, and baselined. Begin RDM Plan.
SMEs – SFA, EXTERNAL, CONSULTANTS	Review and make recommendations.	Review the solution stated in the Business Case, Solution Acquisition Plan, and the Business Performance Model and make recommendations. Assist in the definition and development of the solution by providing solution-related expertise.
SYSTEM MANAGER	Manage, review, and make recommendations.	Work with the Project Manager to ensure that the solution vision meets the SFA's security requirements, and fulfills readiness for transition to support. Responsible for maintaining the system in the support phase. Assign the SSO. Sign off on the Security Checklist.
SYSTEM SECURITY OFFICER	Review and make recom-mendations.	Ensure that the solution vision meets the SFA's security requirements.
TTS LEAD	Plan and Manage TTS activities.	Draft TTS Plan.

Vision Phase Exit Criteria

The next phase of the life cycle is the Definition Phase, where more details of the project solution will become apparent. These details will include solution requirements and high-level design. Before the Vision Phase is considered complete, however, ensure that the following critical and recommended criteria are met:

Critical:

- First iteration of the System Acquisition Plan has been developed and approved.
- The Business Case has been developed and approved.
- The Task Order has been awarded.
- An IPT has been formed.
- The Work Breakdown Structure has been approved and baselined.
- High Level Requirements are developed and approved.
- SLC Security Vision Phase checklist has been completed and approved.
- Security Assignment Letters are approved.

Recommended:

- A Business Performance Model has been developed and approved.
- Status Reports are being prepared.
- Risks and issues are being tracked.
- RDM Plan has begun.
- Creation of QA Plan.
- Creation of CM Plan.
- Creation of TTS Plan.

Vision Phase Job Aids

The following job aids are available in the appropriate SLC Process Guides:

- Solution Acquisition Plan Template
- Solution Acquisition Project Management Checklist
- Configuration Management Plan Template
- Business Case Estimating Tool
- SLC Security Vision Phase Checklist
- Requirements Traceability Matrix Template